



Math worksheet on 'Fraction Manipulation Algebra - Orientation 2 (Level 4)'. Part of a broader unit on 'Algebra Basic Concepts - Advanced'

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**1** Solve the fraction for 'x' in terms of the variables and reduce.

$$3a = \frac{3x}{4b}$$

**a**  
 $x = \frac{4a}{9b}$

**b**  
 $x = \frac{b}{a}$

**c**  
 $x = 4a \cdot b$

**d**  
 $x = \frac{3b}{12a}$

**e**  
 $x = \frac{3a}{12b}$

**2** Solve the fraction for 'x' in terms of the variables and reduce.

$$2a = \frac{2x}{4b}$$

**a**  
 $x = \frac{2b}{8a}$

**b**  
 $x = 4a \cdot b$

**c**  
 $x = \frac{b}{a}$

**d**  
 $x = \frac{4a}{4b}$

**3** Solve the fraction for 'x' in terms of the variables and reduce.

$$3a = \frac{2x}{4c}$$

**a**  
 $x = \frac{4c}{6a}$

**b**  
 $x = \frac{3a \cdot c}{8}$

**c**  
 $x = \frac{4a}{6c}$

**d**  
 $x = 6a \cdot c$

**e**  
 $x = \frac{3a}{8c}$

**4** Solve the fraction for 'x' in terms of the variables and reduce.

$$2a = \frac{3x}{2b}$$

**a**  
 $x = \frac{b}{a}$

**b**  
 $x = \frac{2b}{6a}$

**c**  
 $x = \frac{4a \cdot b}{3}$

**5** Solve the fraction for 'x' in terms of the variables and reduce.

$$3a = \frac{3x}{2c}$$

**a**  
 $x = 2a \cdot c$

**b**  
 $x = \frac{3c}{6a}$

**c**  
 $x = \frac{3a}{6c}$

**d**  
 $x = \frac{3a \cdot c}{6}$

**e**  
 $x = \frac{c}{a}$

**6** Solve the fraction for 'x' in terms of the variables and reduce.

$$4a = \frac{2x}{3b}$$

**a**  
 $x = \frac{4a}{6b}$

**b**  
 $x = \frac{12a \cdot b}{2}$

**c**  
 $x = \frac{3a}{8b}$

**d**  
 $x = 6a \cdot b$

**7** Solve the fraction for 'x' in terms of the variables and reduce.

$$4a = \frac{4x}{4b}$$

**a**  
 $x = 4a \cdot b$

**b**  
 $x = \frac{4a}{16b}$

**c**  
 $x = \frac{b}{64a}$

**d**  
 $x = \frac{16a \cdot b}{4}$